RESEARCH DEPARTMENT

BEDFORD V.H.F. RELAY STATION: SUMMARY OF INSTALLATION

Technological Report No. RA-19/13
UDC 621.396.712 1968/53

It uses SI units in accordance with B.S. document PD 5686.

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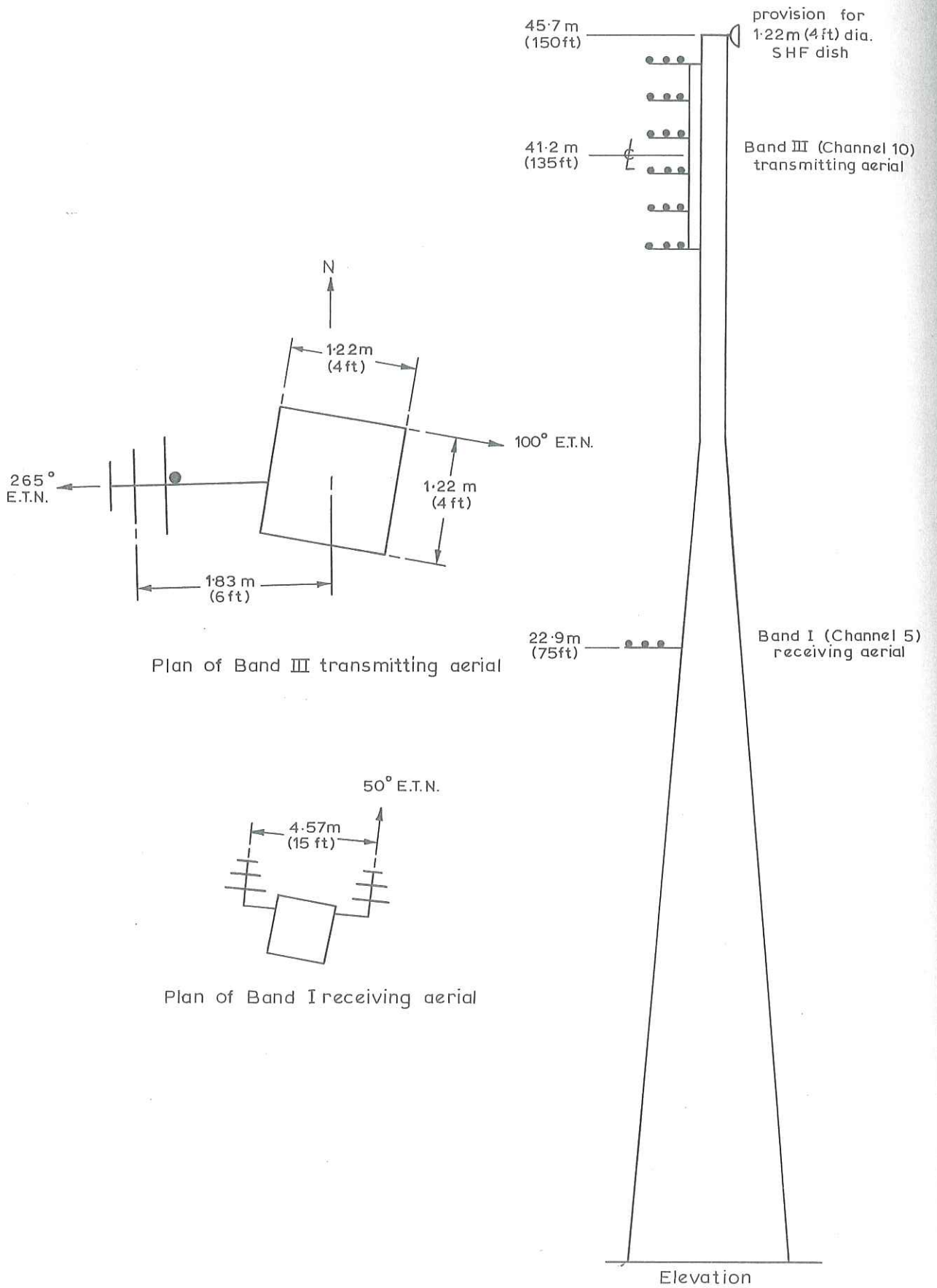

Fig. 1. General arrangement of aerials on tower

BRITISH BROADCASTING CORPORATION
ENGINEERING DIVISION
RESEARCH DEPARTMENT

TECHNOLOGICAL REPORT
NO. RA-19/13 1968/53 Nov. 1968

V.H.F. RELAY STATIONS : SUMMARY OF INSTALLATION TELEVISION

NAME: BEDFORD

SERVICE TRANSMISSIONS COMMENCED: 20th November 1967

SITE DATA

LOCATION: Approximately 8 km (5 miles) East of Bedford

GRID REFERENCE: TL 131481

HEIGHT, A.O.D.: 54.9 m (180 ft)

SUPPORT STRUCTURE

TYPE: Self Supporting Tower

OVERALL HEIGHT: 45.7 m (150 ft)

GENERAL ARRANGEMENT

FIGURE: 1

FREQUENCIES

BAND: III

CHANNEL: 10

VISION CARRIER OFFSET: - 36.5 kHz

SOUND CARRIER OFFSET: - 36.5 kHz

TRANSMITTER

POWER: 140 Watts (Transmitter)

TRANSMITTING AERIAL

DESCRIPTION: Single horizontal three-element Yagi per tier

NUMBER OF TIERS: 6

MEAN HEIGHT: 41.2 m (135 ft) a.g.l.

FEEDERS

TRANSMITTING: T 3321

RADIATION CHARACTERISTICS

POLARIZATION: Horizontal

MEAN E.R.P.: 510 W

MAXIMUM E.R.P.: 2.75 kW

H.R.P.: Fig. 2

PROGRAMME SOURCE

PARENT: Peterborough
Obtained by direct reception

NOTES:

1. Detailed information is given on the following drawings held by BBC Transmitter Planning and Installation Department:

TP 6047.2.183A4	Masts General, Outline and Orientation of 150 ft Tower
TP 9533.2.5A1	Transmitting Yagis
PID 8732.2.4A2	Band I Receiving Yagis, Type 353 P

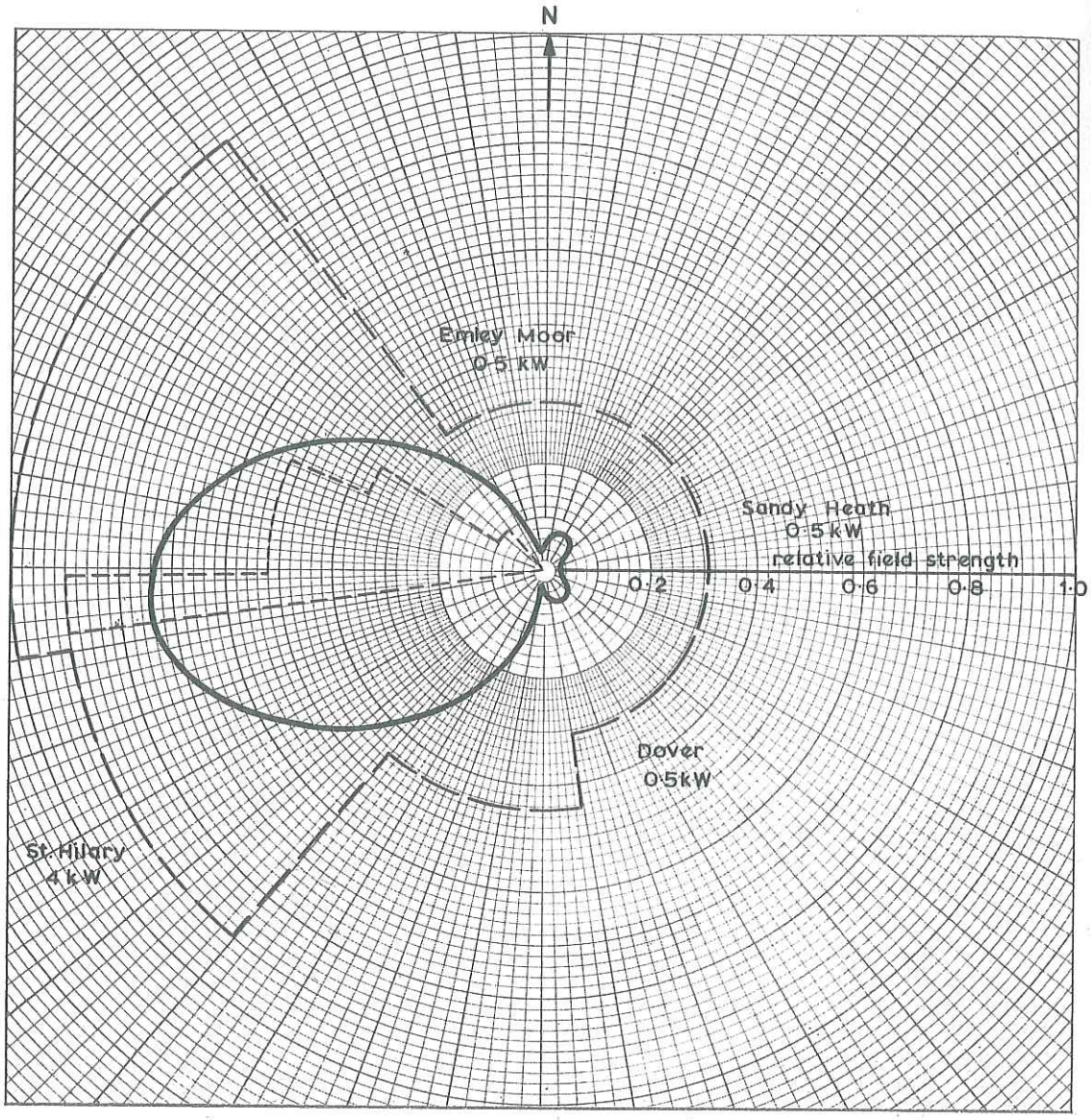

Fig. 2. Templet and horizontal radiation pattern

—— —— —— Maximum permissible E.R.P.

– – – – – – – – Minimum desirable E.R.P.

Unit field corresponds to an E.R.P. of 5 kW

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